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ABSTRACT

This report examines the behaviors and attitudes of Alabama adolescents and provides insights into changes and trends in the selected areas. Relatively few meaningful changes on risky behaviors were found. Risky health behaviors remained a serious, immediate, and future threat to the well-being of Alabama's teens. Changes were extremely modest in the areas of substance abuse, mental health measures, safety behaviors, weight control behaviors, sexual initiation, and pregnancy. One area clearly showing change was physical activity for which there was a downward trend. Given the substantial sums of money spent in the areas of prevention of substance use, violence, and promoting sexual abstinence, it appears that these efforts have not been effective in having an impact on these selected behaviors. In order to maximize the learning environment, behaviors that generally occur away from school must be addressed. This means that prevention programs must involve communities, parents, and others as well as schools. It is essential to utilize strategies and materials that are proven and scientifically tested. Specific issues in different types of programs are discussed; recommendations are provided. Healthy students make better learners; schools and communities must address comprehensive school health issues. Active leadership by state government is required. (EMK)

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Summary Report: A Decade Review of Selected Risky Behaviors and Attitudes of Alabama Adolescents.

By

Stephen Nagy, Ph.D., and Anthony G. Adcock

With

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INTRODUCTION

By: Stephen Nagy, Ph.D., The University of Alabama

The purpose of this report is to examine adolescent behaviors and provide information that can be used to gain insight into the occurrence of these behaviors. We have attempted to incorporate the insights about certain behaviors and attitudes gain over the course of administering the Alabama Adolescent Health Survey to Alabama students in 1988, 1990, 1993 and 1998. Data are reported utilizing percentages. For this reason, interpretation of these values needs to be conducted with caution. Information contained in this report provides snap shots in time of the participating school systems in Alabama. The historical data that examines behaviors over time always uses the same school systems to adjust for possible variations due to the locality. Non-longitudinal data, generally incorporate all the school systems to allow for a more powerful analysis. Analyses in previous reports and studies have shown very little variation between rural or urban systems. Throughout this series of surveys, a number of different systems have participated. The identities' of these school districts are kept confidential. Whenever possible, comparisons attempt to adjust for age and grade to accommodate like comparisons.

We recommend that the data be used as the first step in identifying areas of need. Additional assessment and program planning would be a logical continuation of this process. Program planning should go beyond the extent of this report to ensure that local needs are met.

The 1988 survey examined approximately 3,400 students equally divided between grade 8 and grade 10 from six school districts. In 1990, 3,200 students from these same districts participated. In 1993, approximately 6,500 grade 8 and grade 10 students participated from nine school districts. Finally in 1998, approximately 2,300 students participated, from nine school districts with the majority coming from grade 10 and some coming from grade 9.

Initially, in 1988, school districts were randomly invited to participate, but given the nature of the questionnaire, many school districts declined to participate and the study eventually settled on two rural districts, two semi-rural districts, and two metropolitan districts. This was the general pattern of sample selection across the first three waves of data collection. In 1998, two of the original six school systems declined to participate, reducing the comparison group across the four waves of data collection to four school systems. The 1998 sample consisted of school districts where the majority were from rural settings, however almost half of the students assessed lived in metropolitan settings. Several comparisons which have examined rural versus metropolitan and Alabama versus national data have clearly shown that the data collected in the Alabama Adolescent Health Survey are representative and rarely deviate from the expected norm by fewer than a few percentage points.

A summary of the samples used to obtain historical data consisted of the four core school districts that have been involved in all the surveys is outlined below.

1988 –	51% female	54% white	Total N=1310
	25% 14yrs	54% 15 yrs	21% 16 yrs
1990 -	51% female	59% white	Total N=1084
	29% 14 yrs	50% 15 yrs	21% 16 yrs
1993 -	52% female	52% white	Total N=1292
	33% 14 yrs	35% 15 yrs	32% 16 yrs
1998 -	58% female	56% white	Total N=1411
	9% 14 yrs	44% 15 yrs	47% 16 yrs.

NOTE: Most categories show adequate representation to allow comparisons to be made across the time periods. One exception is the low representativeness of 14 year olds in 1998. Examining changes in the occurrence of behaviors over time for this age group should be done with caution keeping in mind that the 1998 group was small.

Of the over 2000 students who completed the 1998 Alabama Adolescent Survey 56 percent were female and 44 percent were male. When broader descriptions are made of current behaviors among Alabama adolescents, the entire 1998 group is used instead of using just the four core counties.

THE COMPREHENSIVE SCHOOL HEALTH PROGRAM

By: Anthony G. Adcock, H.S.D., Troy State University

As America embarks into a new millennium the challenges to public education have never been greater. Schools can no longer concentrate solely on how to educate students. Today's young people bring to school serious personal, family and social problems which disrupt their lives making teaching and learning very difficult. The frequent identification of poor health as a cause of low achievement indicates a comprehensive approach to student's health and education is needed. The major threats to health are no longer infectious diseases. Today's risks have roots in social, behavioral and environmental conditions, and they are preventable. Tobacco, alcohol and other drug use, poor dietary patterns, violence, accidents, physical inactivity, and risky sexual behaviors account for most of today's illness and disability.

To address these problems many school systems have established "comprehensive school health programs". The components of comprehensive school health programs have been expanded from the traditional three - health education, health services and healthful school environment - to eight components (Allensworth & Kolbe, 1987):

1. Health education: Instruction designed to help students develop behaviors to maintain and improve their physical, mental, emotional, social, and spiritual health.

2. Health services: Procedures in school designed to appraise, protect, and promote the health of students including screening, examinations, emergency care and management of acute and chronic medical conditions.

3. Healthful school environment: The physical and psychological climate designed to provide an environment that promotes learning.

4. Physical education: Instruction which promotes physical fitness and lifelong safe physical pursuits.

5. Nutrition services: The provision of nutritious meals in an environment that encourages healthful food choices.

6. Counseling, psychological, and social services: Procedures designed to prevent and address mental and social problems

which interfere with learning.

7. Staff wellness: Activities for faculty and staff which are designed to improve health and well-being.

8. Involvement of families and communities: Partnerships between schools, families and others in a community designed to maximize resources for addressing health issues of children, youth and families.

None of the components of comprehensive school health can singly meet all of the student's health and education needs. To be effective school health programs must coordinate the various components to avoid overlaps of function and gaps in service. Today the health and well-being of students must be at the heart of the educational enterprise; otherwise educational achievement will suffer.

The behavioral items which have been addressed in this report were selected to provide the most pertinent information for the participating school systems based upon the best judgement of the researchers. The behavioral factors identified as major contributors to illness and disability have been addressed. Where possible the headings for the items have been grouped according to the headings of components in the comprehensive school health program.

Allensworth D. & Kolbe L. (1987). The comprehensive school health program: exploring an expanded concept. Journal of School Health 57(10);409-412.

NUTRITION, EXERCISE & WEIGHT CONTROL

Today's youngsters are fatter than previous generations. In direct contrast with this trend in weight, mass media continue to place a heavy emphasis on slim and lean features. This is problematic for adolescents since they are extremely appearance conscious. Additional concerns with weight control and appearance center on the number of calories that students consume and the amount of fat consumed. Furthermore, exercise plays a role in the weight control issue by establishing how caloric intake is expended. All these factors in conjunction with genetics determine a person's body composition. We have attempted to provide information on several of these items.

***Item* – Has dieted 3+ times past year to loose weight**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	13	18	14	12	18	14	7	27	14	5	10
15	8	27	15	6	28	15	9	22	15	6	26
16	9	25	16	4	25	16	10	24	16	9	23

***Item* – Vomited to lose weight 2 or more times/month**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	7	6	14	10	9	14	8	9	14	5	7
15	7	6	15	3	5	15	7	9	15	4	6
16	4	9	16	8	5	16	9	5	16	9	7

An overview of the historic data show that very little movement has occurred on the weight control items. Information on bulimic activity indicates that between five and ten percent of the adolescents tend to perform this activity at least twice per month. Similarly about five percent of the males have dieted three or more times during the past year to lose weight while almost 25 percent of the females have done similarly. These indicators show that adolescents are concerned with their weight, that it is important to them and that they participated in activities that attempt to control their weight. A review of the **1998** data on perceived body image shows that about half of the students are comfortable with their weight (see the following table).

***Item* – compared to your peers, how do you see yourself?**

14 and younger / 15 and older

A lot fatter	10/10		7/8
Slightly fatter	16/19		15/16
About average	53/52		57/60
Slimmer 'n most	21/19		21/16
	Females		Males

Weight losing practices and bulimic practices do not function independently to provide a profile of weight management by adolescents. It is also important to examine food consumption.

***Item* - Consumed fast food 3+ times last week**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	15	20	14	22	24	14	33	31	14	23	29
15	19	24	15	26	24	15	30	27	15	31	33
16	20	25	16	34	31	16	33	34	16	33	36

A review of the data on fast food consumption three or more times during the past week shows that since 1988 there has been a slow but steady increase in fast food consumption patterns. In 1988 approximately one-quarter of the students indicated three or more fast food meals during the past week whereas in 1998 approximately one-third of the students answered similarly. It is important to recognize that the vast majority of fast foods are high in fat and low in fiber.

The Alabama Adolescent Health Survey has not consistently examined food consumption patterns. However, the 1988 survey had a large section that examined different foods consumed by students. To review these data sources, readers are advised to examine

Nagy, S. & Adcock, A. G. (1990, June). Summary Report: The Alabama adolescent health survey: Health knowledge and behaviors of grade 8 and 10 students. (ERIC Resources in Education Document SP 032 094).

A review of the data found in the 1988 report showed that diets were deficient in fiber consumption, high in sugar, high in fat and by all indications, high in calories. Given the relative increase in fast food consumption since 1988, it is likely that dietary patterns have

not improved. Since Alabama ranks among the highest states in adult diseases that have dietary risk factors (i.e. stroke, heart disease, certain cancers, diabetes), it is imperative to encourage the adoption of diets that are lower in fat and higher in fiber and carbohydrates.

In addition to food consumption, exercise can play a major role in body development. A review of exercise patterns over the past decade shows some changes. This is especially apparent in the 1998 data. The data clearly portray a sedentary profile, where students become more sedentary as they age.

Item – **Three or more aerobic activities per week**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	80	79	14	86	70	14	84	70	14	65	33
15	82	50	15	83	54	15	78	48	15	57	31
16	80	47	16	72	55	16	81	53	16	53	26

The Surgeon General recently announced that increasing physical activity levels among the American population was a number one priority. This announcement by the Surgeon General emphasizing physical activity and related weight management is because these risk factors are important in the prevention and treatment of chronic health problems. It is widely known that many lifestyle behaviors such as exercise are initiated when people are young and when initiated in their younger years, these individuals have a greater likelihood of persisting with these behaviors throughout their remaining years. For this reason, in the 1998 survey, we have examined whether youngsters are participating in light and heavy exercise and where these activities are occurring.

Item – **during the past 2 weeks how many days of heavy exercise for 20 or more minutes?**

14 and under / 15 and older

None	13/20		6/11
1-2	29/25		14/14
3-5	21/25		14/22
6-8	19/12		22/17
9/+	18/18		44/36
	Females		Males

***Item* – during the past 2 weeks how many days of light exercise for 20 or more minutes?**

None	11/17		13/16
1-2	25/24		11/17
3-5	26/23		18/21
6-8	19/14		15/13
9/+	19/22		43/33
	Females		Males

***Item* – during the past 2 weeks did you do any kind of exercise in a place such as a "Y", sports league, dance class, recreational center or any other community center?**

None	60/64		58/56
1-2	14/13		8/13
3-5	8/10		15/11
6-8	9/5		6/7
9/+	9/8		13/13
	Females		Males

***Item* – during the past year, on how many varsity, B varsity or junior varsity sports teams did you play at school?**

None	62/68		49/51
1	27/20		26/26
2	6/8		12/15
3	4/2		6/6
4/+	1/2		7/2
	Females		Males

Summary of Nutrition, Exercise and Weight Control

Most experts on adolescent development agree that adolescence is a time when young people are insecure and overly critical of themselves. Appearance is a very important issue among this age group. Indications of adolescents in Alabama show that weight control and dieting behaviors are practiced by a substantial number of youngsters. Given the number of young people involved in these behaviors, it is important for parents to pay particular attention to good dieting behaviors. Good dieting behaviors should also be emphasized in school cafeterias, as well as in health education and health related classes. Dieting practices play a major role in the development of disease and prevention of poor dietary practices is important.

Additional concerns center on a reduced activity level. This may correspond with an increased emphasis on academic programs in schools with less emphasis on physical education- especially physical education that has lifelong activity as its emphasis. Parents

and school districts should give strong consideration to mandating forms of physical activity that are aerobic in nature. The patterns established during adolescence are frequently carried over to young adulthood.

Mental Health Indicators

The Alabama Adolescent Health Survey has historically examined three items that are general mental health indicators. One item has asked about perceived stress, another has examined how often the student has felt sad, while the other has examined future hopefulness. They are also important quality of life indicators.

Although most adults do not consider these indicators as important, they are important considerations in adolescent behavior, in that they may be antecedents which play influential roles in behavior adoption. When these emotional indicators are interpreted in conjunction with other high risk behaviors, these emotional indicators are factors that can greatly impact on behavioral outcomes. For example, if students feel that they are under stress, do not have much to look forward to and also feel that they are threatened by other students, then they are at high risk for retaliation and if weapons are available, this could be very life-threatening.

***Item* - feel sad often**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	15	18	14	13	25	14	14	31	14	7	33
15	8	23	15	14	32	15	12	32	15	15	24
16	16	27	16	16	33	16	19	32	16	11	27

***Item* - having difficulty with stress**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	26	34	14	25	40	14	35	53	14	33	39
15	23	44	15	21	49	15	37	52	15	34	49
16	23	51	16	32	46	16	33	59	16	36	56

***Item* - Often feel they have nothing to look forward to**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	11	15	14	8	14	14	15	15	14	11	14
15	7	15	15	11	18	15	9	20	15	8	12
16	11	21	16	12	15	16	15	18	16	9	16

Summary of Mental Health Indicators

Mental health data do not show substantial change over the study period. Approximately one-half of the females and one-third of the males indicated that they felt they were under considerable stress. About one-quarter of the females often felt this way and slightly more than 10 percent of the males felt this way. Of especial concern are the data on looking forward to the future. More than ten percent of the females and about ten percent of the males often felt that they had nothing to look forward to.

Although mental health indicators have not changed, increasing violence, homicide and suicide which are impacted by these mental health states have made poor mental health an important risk factor. The measures in our surveys are general indicators of potential problems. School districts and communities should review their efforts designed to identify and alleviate mental health problems. Indications from the survey clearly identify mental health as an area that should be investigated further.

SAFETY & VIOLENCE ISSUES

The major cause of death among adolescents is accidents. For this reason, we have included an item asking students whether they have ridden with a driver under the influence. We recognize that the item does not discriminate as to whether the driver was a parent or peer. However, either type of driver places the adolescent at greater risk.

***Item* - Rode with a drinking driver during past month**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	35	24	14	34	30	14	33	27	14	26	33
15	35	35	15	36	41	15	31	34	15	48	40
16	42	40	16	50	30	16	35	34	16	51	43

There are no clear patterns establishing an increased incidence of riding with a driver under the influence. Substantial numbers of adolescents were riding with such drivers. Close to half of the males and over one-third of the females have indicated that they had been in a vehicle with a drinking driver.

Data from the 1998 survey indicated that many students were not wearing seatbelts. Seat belt utilization on a regular and consistent basis is practiced by fewer than half of the respondents. This is further impacted by the issue of self-report since this is one behavior where individuals have been shown to over-report their participation.

***Item* – how often do you wear a seatbelt in a car or other vehicle?**

14 and under / 15 and older

Always	22/31		31/26
Most	37/35		21/27
Some	25/18		21/22
Rarely	12/ 8		19/13
Never	4/5		8/12
	Females		Males

Assault

We have not included assault data in all four waves of the survey. General measures of potential assault have incorporated an item that has asked the student whether or not they have been threatened to be hurt and another item which asks if they have had something taken from them by force. Although not precise measures, both items convey the perception of potential harm and encourages people to have fear and prepare for violence.

***Item* - Has had something taken by force during past year**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	27	29	14	24	21	14	20	25	14	19	21
15	18	23	15	19	27	15	16	19	15	23	18
16	23	30	16	20	25	16	19	23	16	20	22

***Item* - Someone has threatened to hurt them in the past year**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	45	44	14	39	42	14	41	45	14	56	51
15	37	44	15	37	40	15	39	41	15	49	42
16	34	42	16	45	47	16	40	42	16	40	46

Violent crime remains an important issue among adolescent populations. Most assault in this age group goes unreported. Unfortunately, it is the lack of intervention in initial episodes of violence that eventually allows patterns of violence to escalate and become increasingly life-

threatening. One of the important aspects of violence has been the recognition that violence occurs among the same gender and also across genders. It is likely that spouse abuse patterns are often developed in earlier relationships such as those experienced in adolescence. We have attempted to provide information on these exchanges in the 1998 survey.

***Item* – How many times over the last 12 months did a girl attack you in a way that you were left with a bruise or scar?**

14 and under / 15 and older

Didn't happen	86/89	78/72
1 time	9/7	8/13
2 times	2/2	4/6
3 or more times	3/2	10/ 9
	Females	Males

***Item* – How many times over the last 12 months did a boy attack you in a way that you were left with a bruise or scar?**

14 and under / 15 and older

Didn't happen	75/75	74/81
1 time	18/14	13/11
2 times	1/4	6/4
3 or more times	6/7	7/4
	Females	Males

Weapons

The presence of weapons greatly accelerates physical confrontations to life-threatening situations. Having a weapon may increase the likelihood of using it even when the use of it is unwarrented. We have chosen to examine gun possession and other weapon possession separately

***Item* – during the past 30 days, how many times have you carried a gun for self-protection?**

14 and under / 15 and older

None	97/96	84/78
1 time	2/1	3/5
2 or 3 times	0/1	4/5
4 or 5 times	0/1	3/2
6 or more	1/2	6/10
	Females	Males

***Item* – during the past 30 days, how many times have you carried a knife or club for self-protection because you thought you might need it in a fight?**

14 and under / 15 and older

None	95/86	71/67
1 time	0/5	7/8
2 or 3 times	3/3	3/7
4 or 5 times	0/1	0/4
6 or more	2/5	19/14
	Females	Males

Summary Safety Issues

Many of the safety issues that confront adolescents are issues that occur in places other than on school grounds. A few major homicides in other states have received considerable media attention and this has perhaps disproportionately portrayed school environments as unsafe. Our historic data show very little evidence that threats and assaults have increased in frequency. The major concern surrounding issues of violence centers on the emotional status of adolescents who are threatened and assaulted, and the availability of weapons to these youngsters. This combination has a very serious potential for deadly outcomes. Schools and communities must assess their current policies and priorities. It is clear that parental education regarding weapon availability and safe storage is essential. Furthermore, it is also imperative for school personnel training to identify students who are emotionally stressed and in need of assistance.

Substance Use Issues

This section examines perceptions regarding illegal drug use, heavy drinking episodes during the past two weeks, and lifetime use of various substances. These items have traditionally been included in the Alabama Adolescent Health Survey. Drug consumption patterns in the state of Alabama have typically reflected our national profile. Similarly, rates in urban and rural areas have been very similar.

***Item* - Use an illegal drug**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	14	8	14	13	13	14	17	7	14	11	11
15	17	9	15	17	11	15	18	9	15	29	19
16	23	13	16	22	14	16	18	15	16	40	23

This item is a general item that attempts to examine student perceptions on drug utilization. It is illegal for students under the age of 21 to consume alcohol and for those under the age of 19 to consume tobacco products. It is clear given the percentages of students who indicated that they had consumed these two substances, that underage consumption is not viewed as synonymous with the consumption of illegal substances. In addition, the consumption of marijuana is also illegal, however more students indicated consumption of marijuana than those who indicated that they had consumed something illegal. The perceptions of students appeared to indicate that they viewed illegal substances as hard drugs and that so called soft drugs such as alcohol, cigarettes and marijuana are not necessary perceived as illegal.

The Alabama Adolescent Health Survey has traditionally examined the abuse of alcohol and the consumption of cigarettes. Alcohol abuse remains a major threat to students well-being; especially when students drive after indulging. Examination of the drinking patterns of students who consumed five alcoholic beverages at one sitting during the past two weeks before the survey shows that almost half of the males and about one-third of the females indicated that they had consumed five or more drinks during one sitting during the past two weeks. This pattern of behavior has been relatively constant over the past decade.

***Item* - Consumed 5 drinks in 1 sitting during past 2 weeks**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	35	26	14	34	26	14	37	21	14	26	27
15	37	24	15	40	27	15	37	26	15	34	31
16	40	29	16	43	32	16	42	31	16	43	30

Cigarette consumption also is a major issue among adolescents. Research clearly documents that smokers who initiate the practice before the age of 19 are much more likely to continue through adulthood. Given the strong evidence of smoking as a major risk factor in the development of lung cancer, cardiovascular disease, and stroke, it is imperative to discourage the underage use of tobacco. The historical profile of adolescents who consumed a cigarette during the past month shows no definite trends. Almost one-third of the females and one-third of the males indicated that they had consumed a cigarette during the past month. This clearly presents a challenge to communities to deny underage access and to schools to continue educational initiatives.

***Item* - Smoked a cigarette in the past month**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	23	17	14	28	23	14	32	21	14	28	30
15	24	24	15	32	28	15	33	23	15	34	30
16	28	28	16	44	25	16	31	26	16	40	29

National data on marijuana utilization has shown a profile where consumption was down in the early 90's and began to rise during the mid to late 90's. A review of the historical data on use among Alabama adolescents shows a clear profile that mirrors the national trend. Use among males in the late 80's was near 25-30 percent and went down slightly through the early 90's and shows a definite upswing in the 1998 data. A similar profile is evident for females.

***Item* – Has Used marijuana**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	23	14	14	18	13	14	19	7	14	33	20
15	27	18	15	21	16	15	20	12	15	41	33
16	31	24	16	33	24	16	28	21	16	49	36

Cocaine use among adolescent populations has traditionally been lower than other substances due to its relatively high cost. However, this is a dangerous drug with strong potential for addiction and use by adolescents is a major concern. Data from the surveys shows that approximately ten percent of males and five percent of females have used this substance. Continued community enforcement and school-based education are clearly indicated.

***Item* – Has Used cocaine**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	11	5	14	15	9	14	8	2	14	11	1
15	10	4	15	12	6	15	7	3	15	9	5
16	11	4	16	16	10	16	16	6	16	11	7

A substance that receives relative little public attention is the use of inhalants. These substances are readily available and do not fall under legal restriction. The main deterrent to the use of these substances is educational programming. The relatively high incidence of use indicates substantial need for prevention campaigns in this area. Consistent use of inhalants is strongly related to brain damage and nervous disorders.

***Item* – Has Used inhalants**

	1988			1990			1993			1998	
Age	Male	Female		Male	Female		Male	Female		Male	Female
14	16	18	14	22	14	14	15	11	14	21	10
15	20	11	15	21	16	15	11	11	15	22	18
16	17	13	16	24	14	16	26	13	16	22	16

<u>Summary Substance Use Issues</u>

A review of substance use data shows the need for a review of existing policies. The use of alcohol and tobacco by adolescents is illegal and enforcement efforts must be a community priority. Similarly, educational programming must be directed towards both the school and the community. Parental involvement is of paramount necessity for maximum effectiveness.

Given the profiles of substance use, it is clear that current efforts are not reducing the incidence of use among adolescents. Especially important in addressing curricular issues is the use of community and school-based curricula that have not been empirically reviewed and shown to be effective. Communities continue to adopt curricula that are used because they appeal to adult populations instead of selecting curricula that are shown to be effective with adolescent groups.

Sexuality Issues and Issues of Forced Sex

This section deals with several controversial issues. High rates of teenage pregnancy, STD infection and HIV infection are indicative of high rates of sexual activity coupled with poor preventive and contraceptive methods. A compounding factor is the issue of sexual abuse rates and perceptions of the perpetrators of these events; an issue which remains relatively unaddressed in prevention programs.

Another issue examined in this section is the age of a person's dating partner. This is important because a larger age differential between partners introduces younger partners to an older social circle; one which they frequently are developmentally immature to "hang out" with.

We also examine items addressing the recall of participation in abstinence programs (all school districts now have these programs) as well as items addressing sexual behavioral profiles of youngsters. And finally, an additional item also addresses whether or not the student has been or has made someone pregnant. Alabama remains a state that consistently has high teenage pregnancy rates.

Mean Value for STD Scale

1988	1990	1993	1998
4.98	4.95	4.78	4.14

Alabama has generally been among the top ten states in rates of sexually transmitted diseases (STD's) and AIDS among adolescents. These rates are reflective of individuals not using preventive measures and not seeking health care which prevents the transmission of the disease to other partners. Knowledge of the symptoms of STD's remains an important preventive tool since symptom recognition should motivate individuals to seek appropriate health care. Sexually transmitted disease knowledge is measured by summing the number of correct responses to seven items asking the student whether a symptom is indicative of an infection. The score reported is an average of correct responses for each category.

***Item* - Is sexuality experienced**

1988			1990			1993			1998		
	Male	Female		Male	Female		Male	Female		Male	Female
14	75	36	14	54	53	14	62	34	14	42	39
15	71	44	15	50	48	15	66	47	15	59	47
16	76	56	16	55	55	16	74	67	16	64	59

***Item* – how many sexual partners have you had intercourse with?**

14 and under / 15 and older

None	67/45		56/38
1	10/19		16/17
2-3	11/20		20/23
4/+	12/16		8/22
	Females		Males

The historical data on loss of virginity does not present a clear profile. Rates of female initiation have shown substantial gains and losses over the ten year period indicating no clear trend. A similar profile is evident for males. Given the rates of initiation, approximately half of all students by age 15 are sexually experienced.

A review of the 1998 data on the number of sexual partners provides a more informative view of sexual behavior. It must be understood that not all the students who answered the previous question necessarily answered the question on number of sex partners. This accounts for some minor inconsistencies in the percentages. Similarly, the age breakdowns are different.

Among the initiators, substantial percentages have had more than one sex partner. This is risky since it encourages the spread of STD's and increases the likelihood of pregnancy. It is less likely that the students use consistent birth control.

Another issue impacting on sexual behavior is the age of the partner. Although the following item is not limited to students who are sexually active, it does provide insight into age differentials which play a role in some students who initiate sexual behavior. Students who date others who are substantially older identify with a group that is at greater risk of being sexually active. Approximately one-third of the females dated males who were three or more years their senior.

***Item* – how old is the person you date most often or dated last?**

14 and under / 15 and older

4 + years	1/1		1/3
3 years	3/1		1/5
2 years	2/2		5/11
1 year	1/4		10/20
Same age	9/12		32/24
1 year older	11/18		23/14
2 years older	17/21		4/7
3 years older	23/15		1/3
4/+ years older	11/15		3/3
Don't date	22/11		20/10
	Females		Males

The differential in dating age is frequently identified as a risk factor for pregnancy. Birth records show that the age of the father is usually four or five years older than the age of the mother. A review of 1998 data on pregnancy shows that about 10 percent of the students were at high risk for pregnancy. They have either been pregnant/caused a pregnancy or were uncertain whether they were pregnant/caused a pregnancy. This translates to approximately one in five of sexually active students. Given the high risk for pregnancy, it is clear that younger students are in need of abstinence promotion programs as a method of pregnancy prevention. Examining the age of initiation should assist individuals in deciding at what age these programs should begin. In addition, it is clear that students who have elected to become sexually active need some form of contraceptive education and access to birth control.

***Item* – have you ever been pregnant or made someone pregnant?**

14 and under/15 and older

No	92/90		89/82
Yes	6/8		6/8
Not sure	2/2		5/10
	Females		Males

With regard to abstinence education, virtually all sex education programs in the state of Alabama are abstinence centered. Very few curricula address contraceptive access and utilization. The outcome of these abstinence-centered programs is yet to be clearly established since many have not been empirically tested. Using an item on abstinence education in the 1998 survey, several issues emerge regarding the use of this approach as a sole measure to prevent pregnancy and STD's. The major issue is that the majority of students felt that they had no need for the skills introduced in these programs, or they felt that they did not need to use the skills. Only a minority of the students had elected to use the skills introduced in the programs.

***Item* – have you used any methods, strategies, or ideas that you learned in school to refuse sexual intercourse?**

14 and younger / 15 and older

Use strategies a lot	12/18		11/13
Used strategies a few times	8/17		3/11
Should have but didn't	7/10		4/9
Didn't feel like using strategies	3/5		11/13
No need to use these strategies	54/35		48/33
Have not been taught to use...	16/15		23/21
	Females		Males

Another issue that influences rates of STD's and pregnancy is forced sexual behavior. Previous surveys have had a question on sexual abuse and responses have been interpreted with caution. Students had responded with some inconsistencies so the survey has been modified to its current form in an attempt to more clearly determine the sources of forced sex. A review of the following item identifies several categories that have not been examined extensively in paper and pencil surveys.

***Item* – have you ever been forced to have sex or forced to do sexual things that you really didn't want to do?**

14 and under / 15 and older

No	86/75		90/87
Once	8/14		3/6
Twice	2/5		1/2
3/+	4/6		6/5
	Females		Males

***Item*- Have you ever been forced to have intercourse (sex)?**

14 and under/15 and older

No.	90/79		89/87
Result of peer pressure	6/12		4/7
Threatened by words	2/5		3/2
Being physically hurt	1/2		1/1
Threatened with a weapon	1/0		0/1
More than one from above	0/2		3/2
	Females		Males

A review of the sexual abuse item and the forced sex item showed that many students perceived peer pressure as an influencing factor that forces individuals to have sex. This information is important since perceptions have the potential to be modified through educational interventions. Other factors that influenced the forced sex episode(s) were not as commonly selected as the peer pressure category. There is clearly a need for education and prevention programs directed toward forced sex. In addition, it is also evident that these programs should address a multitude of issues as these relate to peer pressure, coercion and physical assault.

Summary

When examining sexual behavior and sexual experience data it is imperative to recognize that these events rarely, if ever occur on school grounds. The impact of these events however, can and frequently does carry over into school performance. In addition to performance issues, teenage pregnancy, sexual abuse and an infection with an STD impacts

on the well-being of students and thereby affects academic potential. Subsequently, sexual events have an indirect mechanism whereby they impact on the academic environment. It is up to the local community and the school district to establish policies and educational programming that addresses these issues. As in the drug education arena, it is imperative for groups to review existing curricula and additional efforts and select empirically proven methods.

Perspectives of Peers

A common feature in theory about adolescent behaviors recognizes the influence of the peer group. Many theories identify peer norms and expectations as major influences and predictors of adolescent behavior. It is also important to recognize that a greater number of peers generally means that an individual has more resources to call upon during times of need. Subsequently, we have examined how many close friends individuals may have. In addition, we have asked the students to provide some information on how they perceive these people and their expectations for behavior. Finally, we ask about information on whether the individual feels that they fit in. It is important during adolescent years for youngsters to feel accepted and part of a social group.

NOTE: - data utilized for these items come from the collective 1998 sample

Item – how many close friends do you have?

14 and younger/15 and older

None	6/4		6/7
1	6/11		6/9
2 or 3	36/39		27/29
4/+	52/46		61/55
	Female		Male

Item – When you have personal problems, do your friends try to understand and let you know they care?

14 and younger/15 and older

Almost always	64/70		27/28
Some-times	30/25		52/48
Hardly ever	6/5		21/24
	Female		Male

Item – if you were going to do something wrong, would your friends try to stop you?

14 and younger/15 and older

Definit-ely	32/37		17/19
Prob-ably	53/47		43/48
Prob. Not	10/13		28/20
Defin. Not	5/3		12/13
	Female		Male

Item – how many people your own age teased and made fun of you?

14 and younger/15 and older

Same as everyone	77/78		72/72
More 'n Most	16/14		17/16
A lot more	7/8		11/12
	Female		Male

When one examines perspectives of peers, data are relatively positive. Approximately five percent of the students indicated that they did not have a close friend. This means that about one in twenty students most likely felt alienated – approximately one student per classroom. It is unclear whether teachers are aware of these rates and refer such students to counselors. Alienated students are at high risk for acts of retaliation. For the most part however, students feel that they have peers who are close.

The nature of these friendships demonstrates that they are very supportive for females and somewhat supportive for males. These data are shown in the item that asks whether friends try to understand and let you know they care when the student has problems. Approximately five percent of the females indicated that they did not have friends to turn to whereas, about one in four males felt similarly.

Additional insights into friendships is provided by the next item which asked whether friends would stop the student from doing something wrong. About one in five of the females were uncertain about their friends and whether they would attempt to stop them from doing

something wrong. A similar comparison with males showed that about one in three males fell into this group. This is an interesting perspective of peers and seems to imply that a substantial number of students did not feel that their peers would act in a moral fashion and attempt to keep them from doing harm.

A final item in this section examined the issue of teasing. This practice has been evident from generation to generation and few studies have attempted to identify the number of students who feel that they are teased excessively. In this study, approximately ten percent of the students felt that they were teased a lot more than their peers. We have not identified the exact nature of the teasing events and how they may impact on the individual students. However, feelings of being teased most likely lower self-worth and self-esteem. Addressing issues of teasing should assist schools to improve classroom climate.

Perspectives of Parents

Although peers are a very important social group, parental influence frequently predominates as the most important form of influence for behavior. We have asked how the adolescents have perceived their parents' interest in their lives.

***Item* – are your parents or guardians interest in what you think and how you feel?**

14 and younger/15 and older

Almost always	64/62		64/64
Some-times	27/28		29/26
Hardly ever	9/10		7/10
	Female		Male

***Item* – when you go out after supper or on weekends, do your parents set curfews?**

14 and younger/15 and older

Almost always	52/54		50/39
Some-times	36/33		33/38
Hardly ever	12/13		17/23
	Female		Male

***Item* – when you go out after supper or on weekends, do your parents know where you are going?**

14 and younger/15 and older

Almost always	69/65		62/52
Some-times	28/28		32/35
Hardly ever	3/7		6/13
	Female		Male

It is very possible that parents may feel they emotionally support their children but these perceptions may not be shared by adolescents. About ten percent of the students indicated that their parents did not care about them. Similarly, about 25 percent of the students indicated that their parents care only sometimes. These data imply that about one-third of the students believed their parents did not support them consistently. The other two-thirds of the students showed a profile indicative of parental concern and nurturance.

When asked about parental supervision, about half of the students indicated that parents supervised them closely, whereas about a third indicated some supervision and about 10 percent indicated virtually no supervision. The research literature clearly shows that parents who supervise consistently have fewer children involved in at-risk activities. Schools and communities should continue to run awareness campaigns informing parents of these relationships.

SUMMARY

The purpose of this report is to examine the behaviors and attitudes of Alabama adolescents and attempt to provide insights into changes and trends in the selected areas. This report is limited in its scope and has not addressed all of the factors that impact on adolescent attitudes and behaviors. It functions primarily as a monitoring mechanism, providing insights and confirmations about observations in the field.

A review of the trends on the selected behaviors showed relatively few meaningful changes on risky behaviors among Alabama adolescents. Risky health behaviors remained a serious immediate and future threat to the wellbeing of Alabama's teens. Changes were extremely modest in the areas of:

- Substance use
- Mental health measures
- Safety behaviors
- Weight control behaviors
- Sexual initiation and pregnancy

One area clearly showing change was physical activity where there was a downward trend.

Conclusions

Given the substantial sums of money spent in the areas of substance use and violence and more recently in the area of sexual abstinence, it appears that these efforts have not been effective in impacting on these selected behaviors. In order to maximize the learning environment for Alabama adolescents, it is imperative to address behaviors that generally occur away from school environments. This mandates that prevention programs involve not only schools, but communities, institutions within these communities, and the parents and significant others in these respective constituencies. As these groups attempt to address the issues highlighted in this report, it is essential to utilize strategies and materials that are proven and scientifically tested.

A review of health curriculum materials used in Alabama schools and communities shows a plethora of programs often tied together with little consideration for scope and sequence. Programs are frequently designed without adequate consideration for comprehensive and systematic development.

Research in the field of behavior change has demonstrated that programs designed to impact on adolescent behaviors should emphasize decision-making, social skill enhancement, and be interactive with students. The best programs have generally been based upon clear

theoretical frameworks often utilizing peer driven approaches. In addition to these content characteristics, programs have adequate time allotted to allow the program to produce a desired impact.

Findings from Connell et al.(1985), show that sequential and comprehensive school programs require 55 hours of inclass time to have meaningful effects on student behaviors. This expectation extends beyond one school year and mandates that programs address health issues repeatedly in an increasingly mature fashion that is developmentally appropriate for students.

Programs that are more specific in focus have different time requirements. The entire issue of Preventive Medicine (25, 1996) examined the Child and Adolescent Trial for Cardiovascular Health and concluded that behavior change was effective after 35 hours of intervention on physical activity, sequentially designed and implemented over a three year program. Given the findings from these two major studies, it is clear that programs require sequential planning and that students must have adequate class time for the program to have the desired impact.

Another issue in health education centers on teacher preparation. Findings by Connell and Turner (1985) documented that teacher training strongly impacted the effectiveness of programs. This requires a commitment to continuing education for teachers who have been appropriately trained and certified to function as health educators. Given the limited funding and classroom requirements, this has traditionally been extremely difficult in Alabama and continuing education remains a low priority.

School based efforts to support comprehensive school health in the majority of Alabama counties have not been a high priority. The lack of economic support causes difficulty for school administrators trying to make decisions regarding health education and school health issues. Furthermore, the potential for controversy and lack of state leadership that addresses controversial issues handicaps local administrators who wish to address student health issues.

All individuals should recognize that healthy students make better learners. It is imperative for communities and schools to address comprehensive school health issues to maximize learning in Alabama. This mandates that communities take a more objective approach to comprehensive school health issues. In addition, it requires an active leadership by state government.

Connell, D., Turner, R., & Mason E. (1985), Summary of Findings of the School Health Education Evaluation: Health Promotion Effectiveness, Implementation, and Costs, *Journal of School Health 1985, 55, 316-321.*

Connell, D. and Turner, R. (1985), The Impact of Instructional Experience and the Effects of Cumulative Instruction, *Journal of School Health 1985, 55, 324-331.*

RECOMMENDATIONS

1. There is a need for schools and communities to monitor the behaviors and attitudes of children and adolescents. It is only through continued monitoring that schools and communities can determine how their efforts are impacting on these young groups. This data should be made available to the public in a timely manner.

2. The lack of change in the areas of adolescent behaviors indicates that attempts to implement programs have not been successful. Schools and their constituencies maximize the potential for success in prevention programs when they adopt scientifically proven, empirically test approaches. Currently, there seems to be insufficient accountability on how monies are being spent and how decisions are being made in an attempt to address adolescent risky behaviors.

3. Health education activities and physical education activities should utilize appropriately trained and certified teachers. Continuing education for these teachers is essential to keep up with changes in the field.

4. Educational interventions should be comprehensive and incorporate multiple dimensions of the school health program. Schools should foster involvement with students, their families, social institutions and community health resources. Periodic health screening and examination, as well as counseling, psychological and social services should be available to address student problems which need to be addressed. This should actively involve parent groups and organizations.

5. State agencies, colleges, universities and communities must collectively address these issues and unite to formulate interventions that are locally appropriate and locally designed and driven. It is essential that politicians provide leadership in these activities.

6. Continued monitoring of risky health behaviors is essential to establish progress and change among adolescents. The atmosphere in Alabama challenges this practice and school systems previously involved in monitoring have withdrawn participation due to fear of reprisals for participating. The researchers recommend that research be conducted to identify social and political factors that oppose the monitoring of these serious health issues.

PREVIOUS SUMMARY REPORTS

Nagy, S. & Adcock, A. G. (1990, June). Summary Report: The Alabama adolescent health survey: Health knowledge and behaviors of grade 8 and 10 students. (ERIC Resources in Education Document SP 032 094).

Nagy, S., & Adcock, A. G. (1992). Summary Report II, The Alabama Adolescent Health Survey: Health Knowledge and Behaviors. (ERIC Resources in Education Document 338 608).